



# Road Safety 365: A Safety Workshop for Local Governments

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# Road Safety 365: A Summary

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- 6 hours of Instruction (8 hours with breaks)
- Interactive Class w/ Discussion
- Typically 30 Class Participants
- Case Studies
- Case Studies w/ Companion Videos
  
- Train the Trainer Workshops in 2011
- Dan Cady is an Instructor for this course

# Course Agenda

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Module 1: Course Introduction

Module 2: The Need for Road Safety

Module 3: Road Safety- Myth vs. Reality

Module 4: Reading the Road- How You Can Help Improve Safety in Your  
Community

Module 5: Making Roads Safer - A Process for Reducing Crashes

Module 6: Group Activity - Identifying Opportunities for Making Roads  
Safer

Module 7: Planning and Paying for Safety

Improvements - How to do More with Less

Module 8: Spreading the Word about Safety

Module 9: Course Wrap Up



- Provide practical guidance on improving road safety that is specifically geared to local/rural road project development processes and day-to-day activities.
- Enable local/rural road agency road owners and practitioners to identify and access appropriate road safety information, and use it effectively.
- Encourage participants to develop a safety mindset.

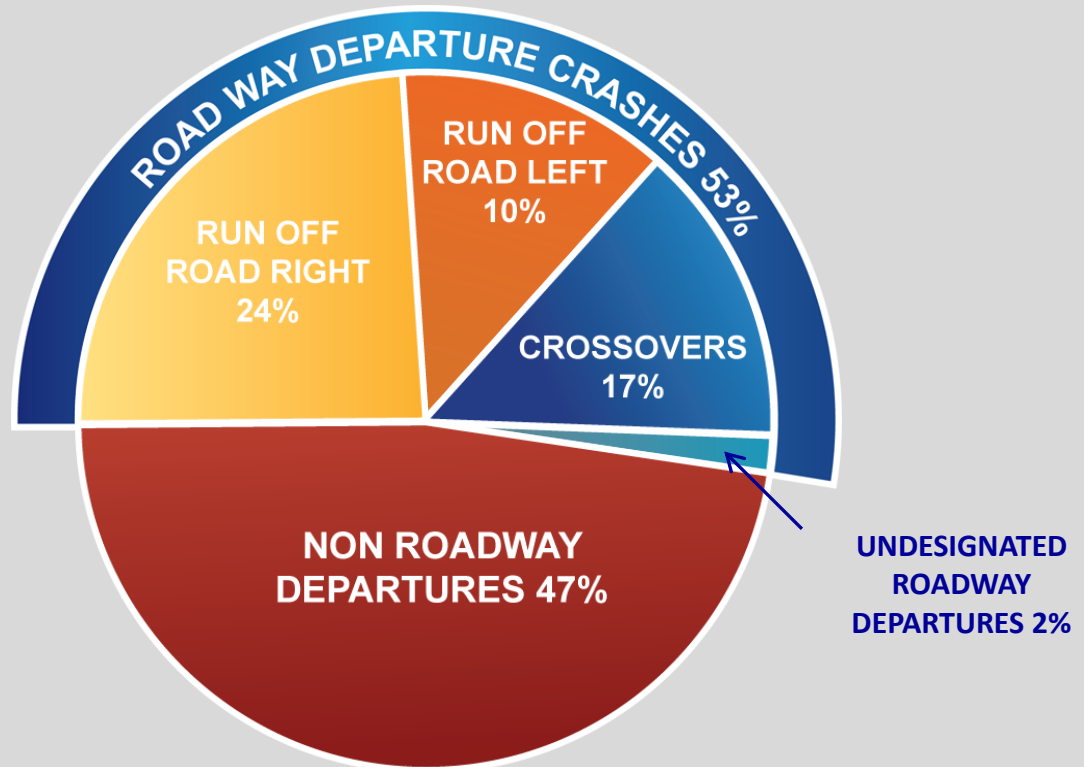
# Intersections, Roadway Departure, Pedestrians

*“There are approximately 300,000 signalized intersections in the United States. About 1/3 of all intersection fatalities occur at these locations; resulting in roughly 2,300 people killed in a single year. ”*

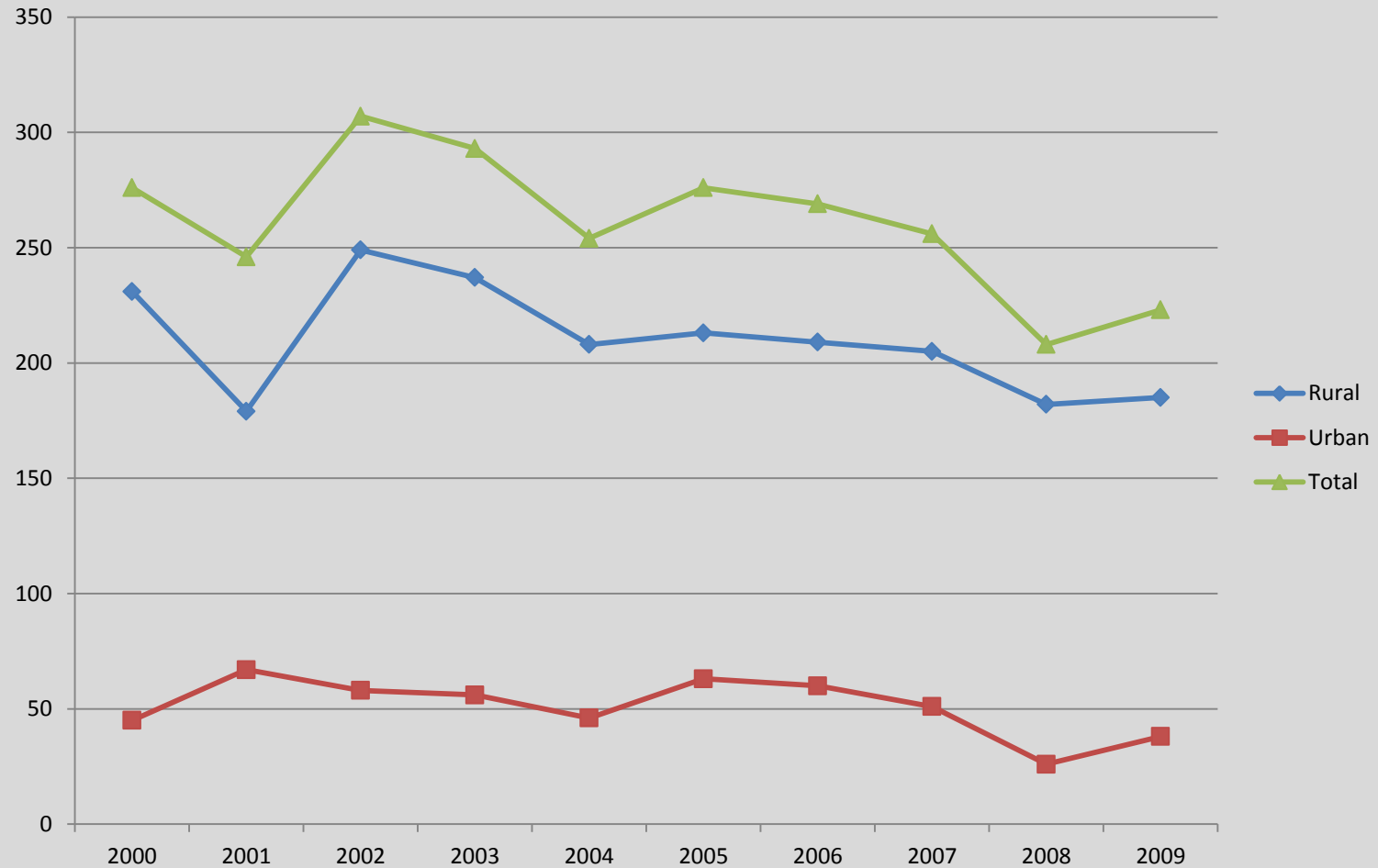
– Roundabouts Fact Sheet

## Pedestrian Safety Facts:

- Pedestrians represent over 12% of Highway Fatalities.
- Midblock locations account for over 70% of pedestrian fatalities.
- Over 80% of pedestrian fatalities hit by vehicles traveling at 40 mph or faster will die, while less than 10% die when hit at 20 mph or less.



## Nebraska Crash Data 2000-2009



Source: NHTSA

# NE Average Fatalities Per Year 2000-2009

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**10 pedestrian**  
**81 intersection**  
**158 roadway departure**



# Challenges to Road Safety

## *Limited...*

- Budgets
- Staffing
- Time
- Crash data
- Traffic and road information
- Understanding or awareness of safety issues
- Training

## *In addition to...*

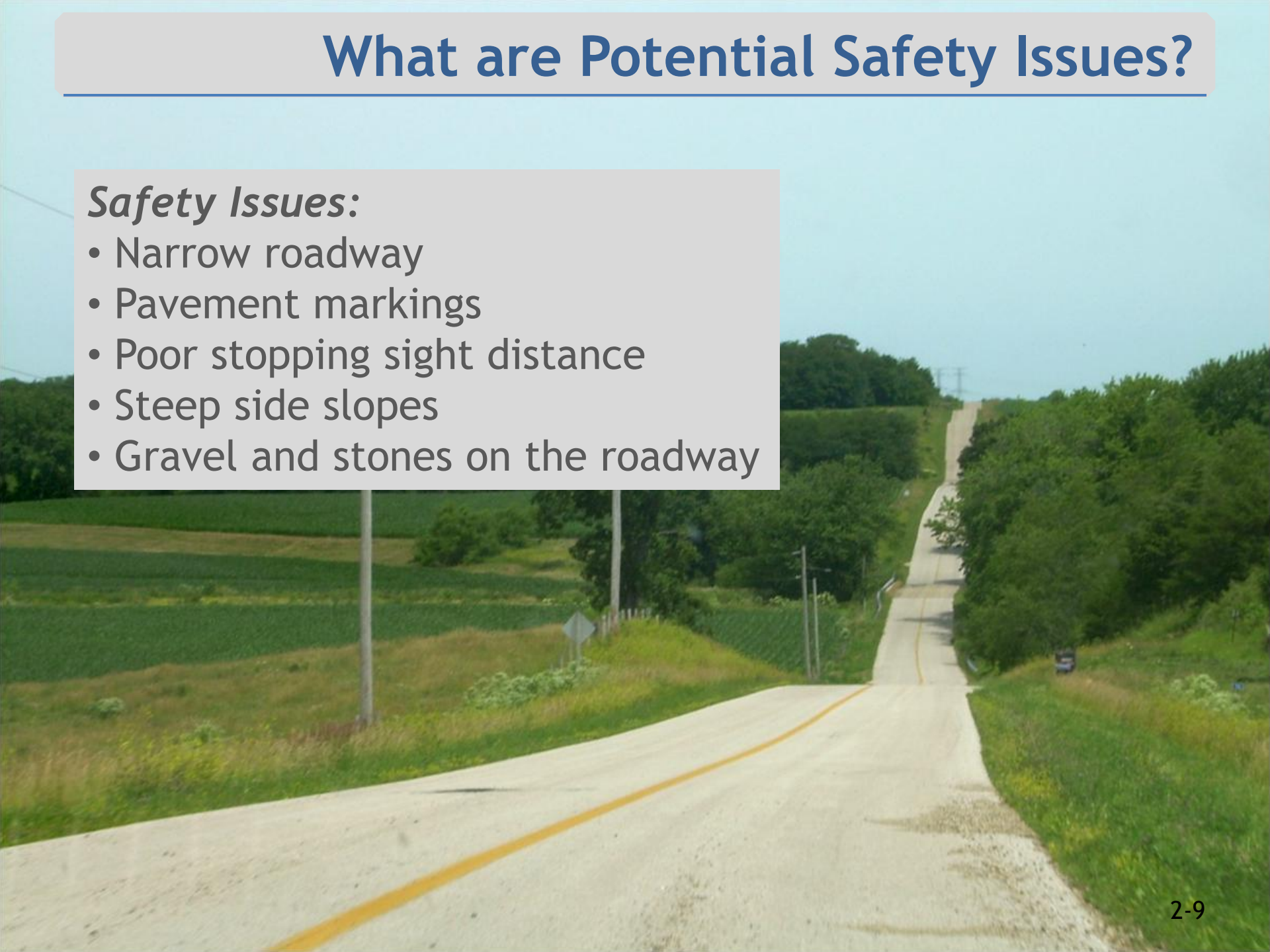
- Lack of coordination between agencies
- Competing priorities
- Multiple Road Users
- Politics
- Staff turnover
- Empowerment
- Myths



# What are Potential Safety Issues?

## *Safety Issues:*

- Narrow roadway
- Pavement markings
- Poor stopping sight distance
- Steep side slopes
- Gravel and stones on the roadway



# What are Potential Safety Issues?



## *Safety Issues:*

- Water on roadway
- No shoulder/edgeline



# What are Potential Safety Issues?



## *Safety Issues:*

- Trees in clear zone
- Limited sight distance
- Lack of signs and delineation



# What are Potential Safety Issues?



## *Safety Issue:*

- Pavement edge drop-off



# What are Potential Safety Issues?



## *Safety Issue:*

- Deteriorated sign retroreflectivity

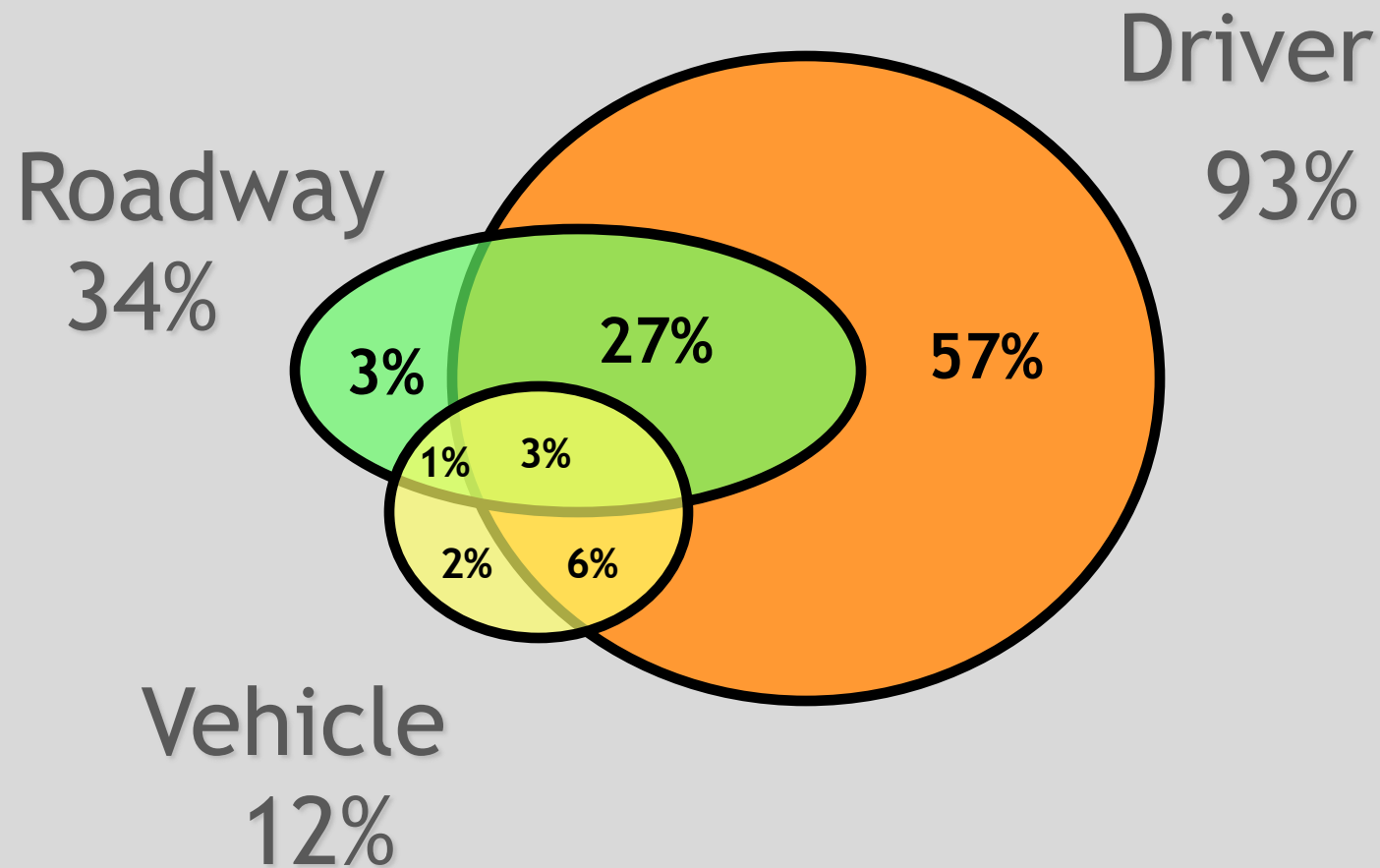
## Myth:

Crashes are the driver's fault and there's nothing I can do about it.

## Reality:

Crashes have multiple causes (driver, roadway and vehicle)

# Crash Causes





## Myth:

I can't do safety  
because first I  
have to repave  
(or replace my  
signs)

## Reality:

Safety can be  
incorporated into all  
activities

## **Myth:**

Crash reports are  
completed by  
police officers only  
for insurance  
companies.

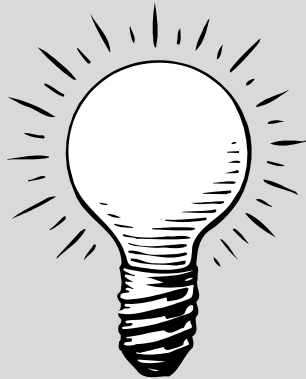
## **Reality:**

Crash reports are  
used in making  
roads safer.

# Ways to Overcome Some Challenges

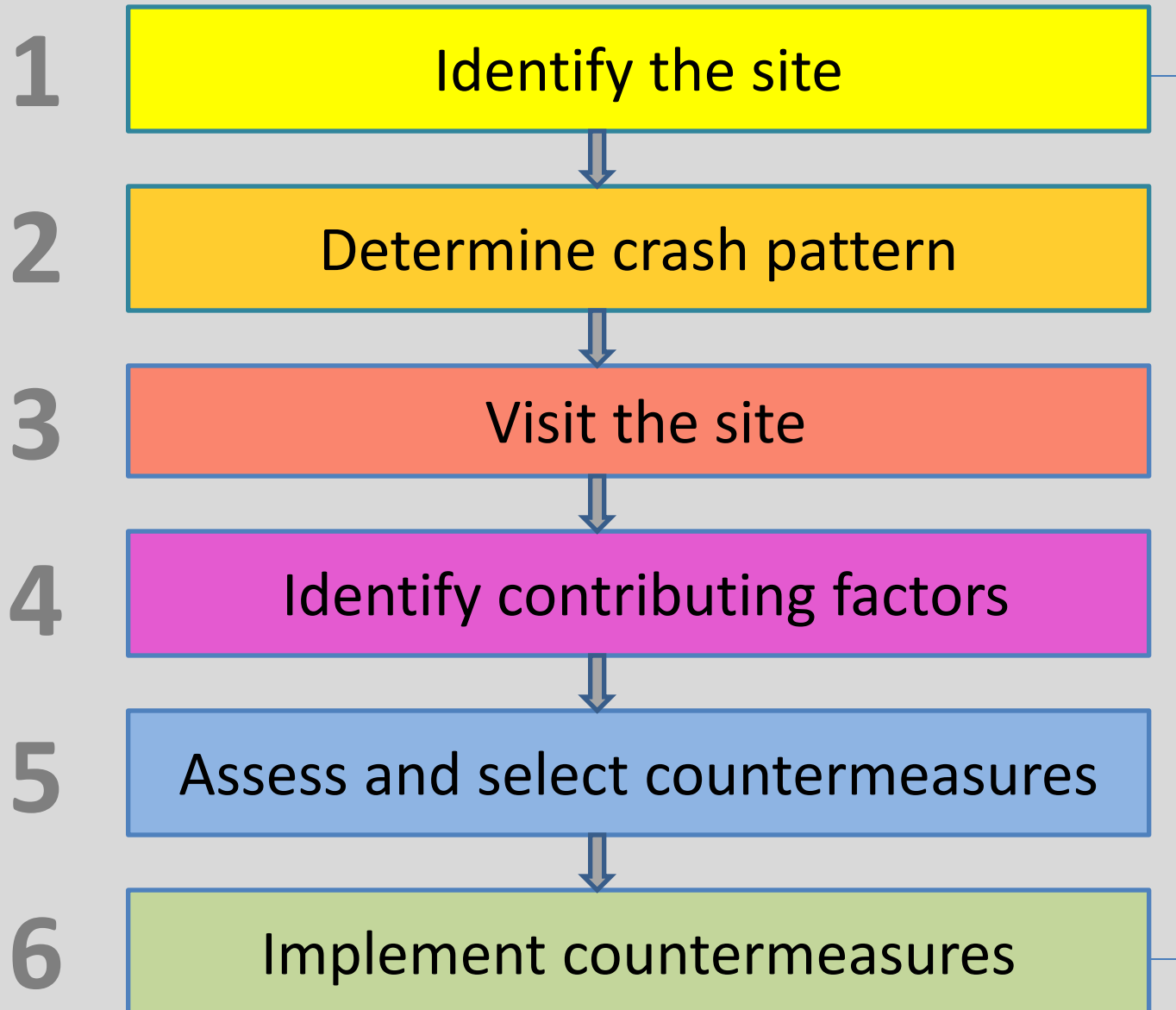
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- Develop safety awareness
- Identify what to look for
- Identify simple, low cost ways to improve road safety
- Incorporate safety into the “Big Picture”

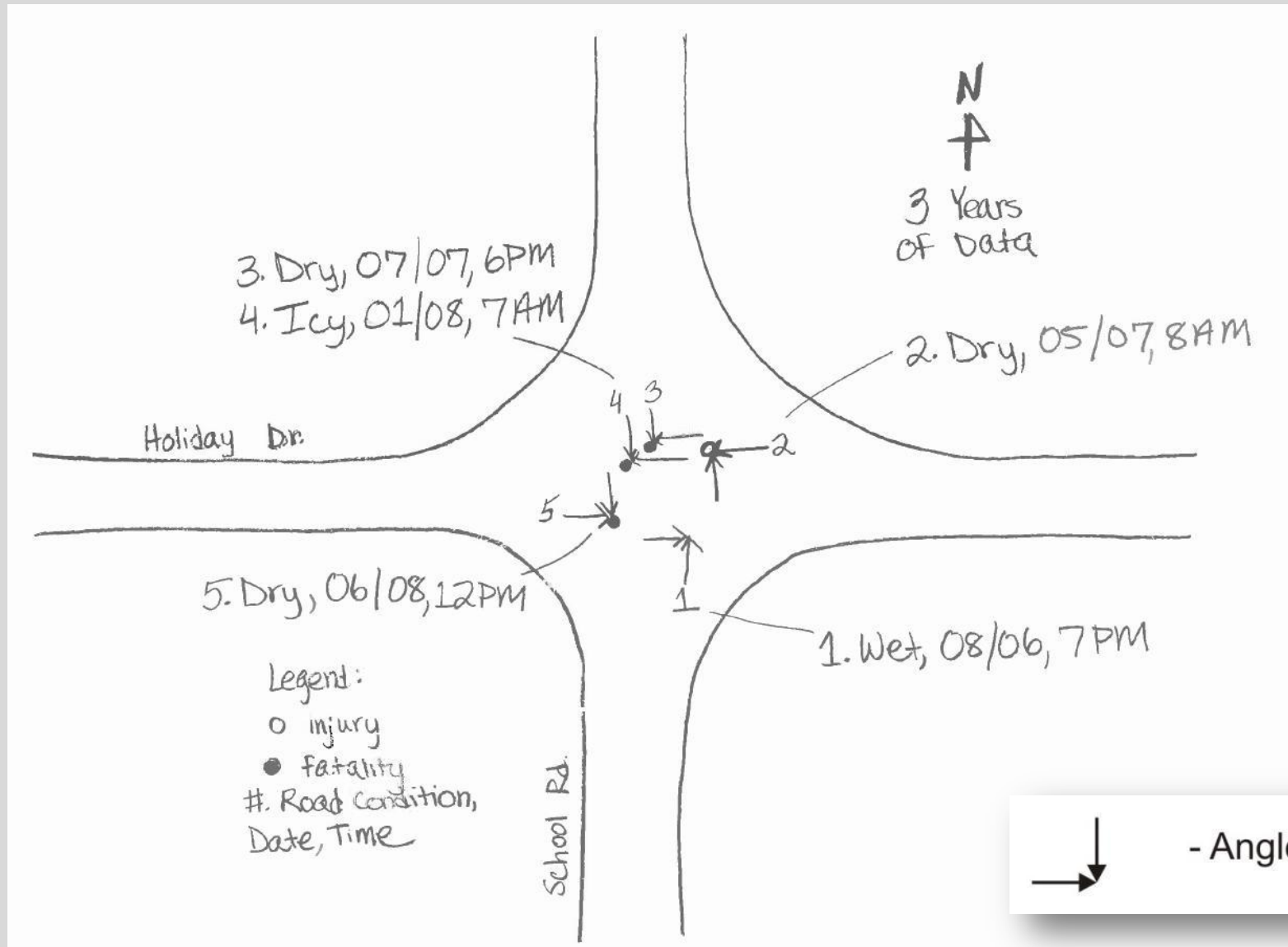


# Steps in Crash Reduction Process

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# Create Collision Diagram



Collision Diagram

# Road Safety Audit/Assessment (RSA)

RSA = formal safety performance examination of an existing or future road by an independent audit team.



“RSAs are a proven way to review just how safe our local roads are and can be a valuable tool for local government road professionals in making their roads safer.”

Tony Giancola  
Former Executive Director, NACE

# Select RSA Team



- Independent
- Experienced
- Multi-disciplinary



# FHWA Proven Safety Countermeasures

## Proven Safety Countermeasures Web Site

Scan the code at right  
to go directly to the  
Web site!



The **NEW** Proven Safety Countermeasures Web site is now available!

This Web site will be your one-stop shop for information on the **latest** FHWA-recommended set of research-proven safety countermeasures and FHWA **guidance** on countermeasure considerations. The updated list of proven countermeasures was developed based on recent safety research to address **intersection**, **roadway departure**, and **pedestrian** issues wherever they may occur. Many of these countermeasures are low-cost solutions, and FHWA encourages its partners to consider implementing these countermeasures broadly, as appropriate, to reap the benefits of using solutions that are known to save lives.

### UPDATED! FHWA-Recommended and Proven Countermeasures:



Roundabouts



"Road Diet"  
(Roadway Reconfiguration)



Pedestrian Hybrid Beacon



Medians and Pedestrian  
Crossing Islands in Urban and  
Suburban Areas



Corridor Access Management



Backplates with Retroreflective  
Borders



Longitudinal Rumble Strips and  
Stripes On Two-Lane Roads



Safety Edge<sup>SM</sup>



Enhanced Delineation and  
Friction for Horizontal Curves

**LEARN MORE TODAY!**

<http://safety.fhwa.dot.gov/provencountermeasures>

# Countermeasures to Consider

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- Edgelines and delineation
- Rumble strips



<http://safety.fhwa.dot.gov/policy/memo071008/>

# Countermeasures to Consider

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- Barrier/guardrail





# Countermeasures to Consider

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- Safety Edges



Source: FHWA

<http://safety.fhwa.dot.gov/policy/memo071008/>

# Countermeasures to Consider

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- Left-turn lanes



# Countermeasures to Consider

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- Sidewalks
- Walkways





# Countermeasures to Consider

## Pedestrian Refuges





# Incorporating Safety into Capital Projects

- Identify targeted safety improvements for capital projects
- Not feasible to implement system-wide upgrade program
- Road Safety Audits (RSA) can identify safety issues and low-cost countermeasures



# Incorporating Safety into Capital Projects

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Install/upgrade traffic control devices:

- Rumble strips
- Delineation
- Pavement markings
- Signs
- Signals



# Incorporating Safety into Capital Projects

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Improve access management:

- Access consolidation
- Access reconfiguration
- Lighting
- ADA Requirements



# Incorporating Safety into New Developments

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Consider:

- Access management
- Traffic control improvement
- Additional turn lanes
- Right-in/Right-out
- Roundabouts



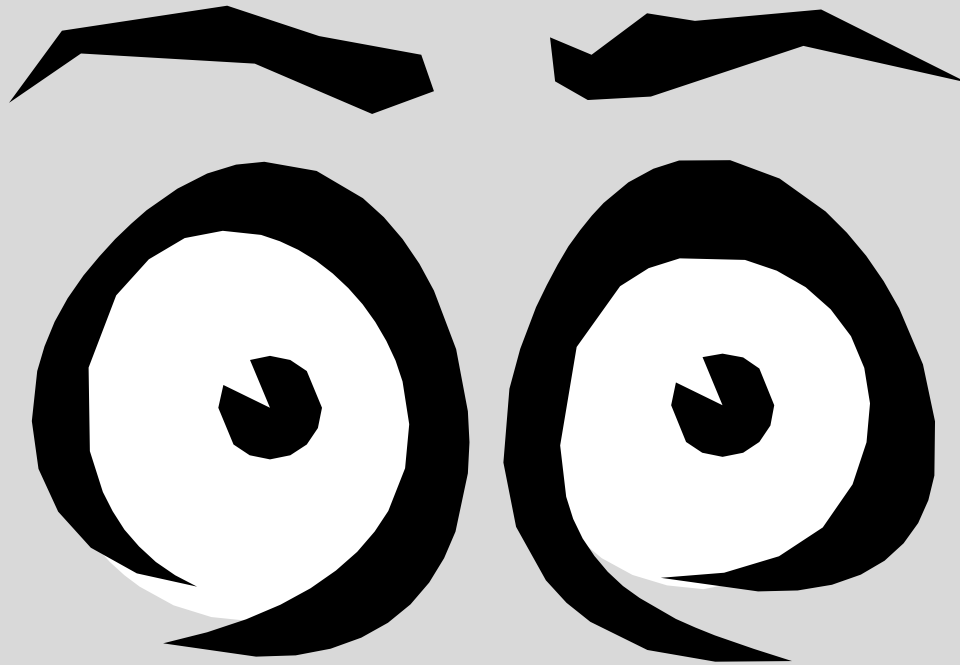


# Incorporating Safety into Ongoing Maintenance

Upgrade traffic control devices during maintenance:

- signs
- signals
- pavement markings





**“Extra Eyes for Safety”**

# Reading the Road

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Looking for indications that road users may be having problems travelling a section of roadway.



# What Indication Do You See?

*Object Marker*





# What Indication Do You See?



*Damaged guardrail*

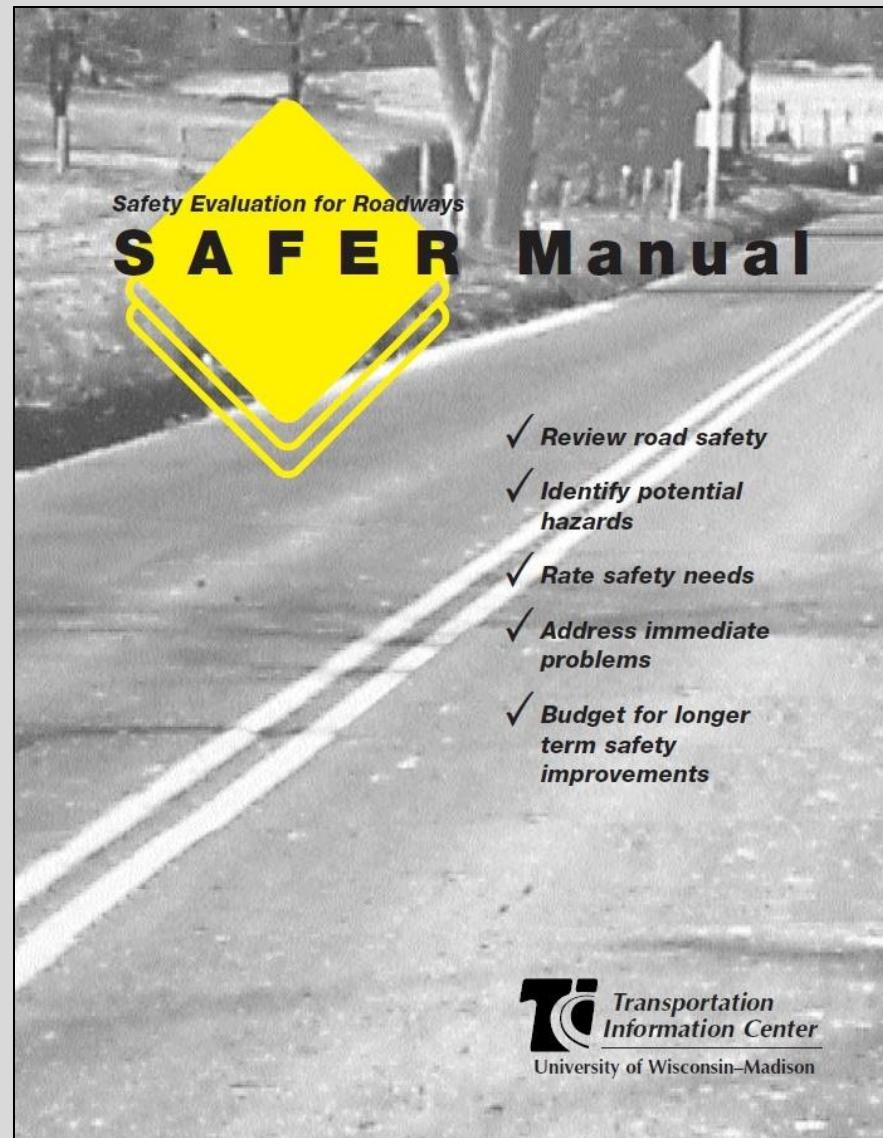
Clear  
Creek



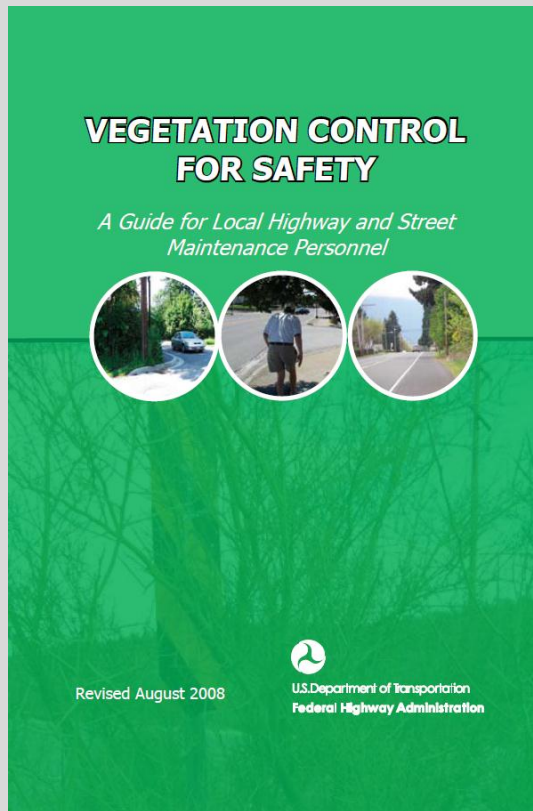


# Routine Maintenance

## ADOPTING A PROACTIVE ATTITUDE







[http://safety.fhwa.dot.gov/local\\_rural/training/fhwasa07018/](http://safety.fhwa.dot.gov/local_rural/training/fhwasa07018/)

[http://safety.fhwa.dot.gov/local\\_rural/training/fhwasa09024/](http://safety.fhwa.dot.gov/local_rural/training/fhwasa09024/)

- Highway Safety Improvement Program (HSIP)
- High Risk Rural Roads
- STP Funds
- CMAQ
- Transportation Enhancement Fund
- Safe Routes to School
- State Funds
- Local Funds

Visit: [safety.fhwa.dot.gov/hsip/](https://safety.fhwa.dot.gov/hsip/)



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Questions & Comments

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